

AMENDMENTS TO THE CLAIMS

Please amend claims 1, 5, and 42, and cancel claims 10 and 45 without prejudice, such that the status of the claims is as follows:

1. (Currently amended) A light emitting diode (LED), comprising:

a semiconductor layer of a first polarity;

an active layer, located on the semiconductor layer of the first polarity; and

a semiconductor layer of a second polarity, located on the active layer, wherein at least one side of at least the active layer and the semiconductor layer of the second polarity ~~is of irregular shape~~ has a wave-shape border in a top view of the LED, thereby reducing the probability of reflecting the light emitted from the active layer, thus making light emitted from the active layer penetrate through the at least one side and be emitted outside the LED.

2. (Original) The LED according to claim 1, wherein the semiconductor layer of the first polarity is made of GaN.

3. (Original) The LED according to claim 1, wherein the active layer is made of InGaN.

4. (Original) The LED according to claim 1, wherein the semiconductor layer of the second polarity is made of GaN .

5. (Currently amended) The LED according to claim 1, wherein the ~~wave-shape borders~~ shape of the at least one side in the top view of the LED is selected from a group consisting of ~~triangle~~ triangular wave-shape border, ~~semicircle~~ semicircular wave-shape border, and ~~parabola~~ parabolic wave-shape border.

6. (Original) The LED according to claim 1, wherein a deformed dimension of the at least one side is greater than an equivalent emitting wavelength of the LED.

7. (Original) The LED according to claim 1, wherein an incident angle of the light emitted from the active layer to the at least one side is less than a reflective critical angle of the at least one side.

8. (Original) The LED according to claim 1, wherein at least the active layer and the semiconductor layer of the second polarity therein further have at least one valley penetrating from an upper surface of the semiconductor layer of the second polarity to a lower surface of the active layer, thereby increasing an efficiency of emitting the light emitted from the active layer to the outside of the LED.

9. (Original) The LED according to claim 8, further comprising a substrate located under the semiconductor layer of the first polarity, wherein the at least one valley further reaches to an upper surface of the substrate.

10. (Canceled) The LED according to claim 1, wherein the at least one side is formed by reactive ion etching (RIE).

11 – 40. (Canceled).

41. (Previously presented) A light emitting diode (LED), comprising:

- a semiconductor layer of a first polarity;
- an active layer, located on the semiconductor layer of the first polarity; and
- a semiconductor layer of a second polarity, located on the active layer, wherein at least one side of at least the active layer and the semiconductor layer of the second polarity has an uneven surface, thereby reducing the probability of reflecting the light emitted from the active layer, thus making light emitted from the active layer penetrate through the at least one side and be emitted outside the LED.

42. (Currently amended) The LED according to claim 41, wherein the uneven surface of the at least one side in a top view of the LED has a wave-shape border, and the wave-shape border in the top view of the LED is selected from a group consisting of triangular wave-shape border, semicircular wave-shape border, and parabolic wave-shape border.

43. (Previously presented) The LED according to claim 41, wherein a deformed dimension of the at least one side is greater than an equivalent emitting wavelength of the LED.

44. (Previously presented) The LED according to claim 41, wherein an incident angle of the light emitted from the active layer to the at least one side is less than a reflective critical angle of the at least one side.

45. (Canceled) The LED according to claim 41, wherein the at least one side is formed by reactive ion etching (RIE).

46. (Previously presented) The LED according to claim 41, wherein at least the active layer and the semiconductor layer of the second polarity therein have at least one valley penetrating from an upper surface of the semiconductor layer of the second polarity to a lower surface of the active layer.

47. (Previously presented) The LED according to claim 46, further comprising a substrate located under the semiconductor layer of the first polarity, wherein the at least one valley further reaches to an upper surface of the substrate.

48. (Previously presented) The LED according to claim 41, wherein the semiconductor layer of the first polarity is made of GaN.

49. (Previously presented) The LED according to claim 41, wherein the active layer is made of InGaN.

50. (Previously presented) The LED according to claim 41, wherein the semiconductor layer of the second polarity is made of GaN.